

[Sales Panel]

For further information see attached pamphlet
Vir verdere inligting sien aangehegte pamflet



THALA™ 960 EC

Reg. No. / Nr. L11059, Act No. / Wet Nr. 36 of/ van 1947

READ THE LABEL BEFORE USE

KEEP OUT OF REACH OF CHILDREN AND ANIMALS

A pre-emergence emulsifiable concentrate herbicide for the control of most annual grasses and certain broadleaf weeds in dry beans, groundnuts, soybeans, sunflowers, grain and forage sorghum, sugarcane, potatoes, lupins and tobacco, as well as early post emergence in maize.

'n Emulgeerbare konsentraat vooropkom onkruidodder vir die beheer van meeste eenjarige gras- en sekere breëblaaronkruid in droëbone, grondbone, sojabone, sonneblomme, graan- en voersorghum, suikerriet, aartappels, lupiene en tabak, asook vroeg na-opkoms in mielies.

GROUP/GROEP	15	HERBICIDE/ ONKRUIDDODER
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Active ingredient:

Aktiewe bestanddeel:

Metolachlor (chloro-acetanilide).....960 g/ℓ..... Metolachloor (chloorasetanilied)

Netto volume

ℓ

Net volume



WARNING

GHS Hazard Statements

Harmful if swallowed
May be harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

GHS Precautionary Statements

Avoid release to the environment.
Wash body thoroughly after handling.



REGISTRATION HOLDER / REGISTRASIEHOUER:

AECI® Limited / AECI® Beperk

Reg. No. / Nr. 1924/002590/06

P.O. Box / Posbus 14418

Witfield, 1467

Tel : (011) 823 8000

www.aeciph.com/www.aeciworld.com

THALA™ Trademark pending of AECI® Limited / 'n hangende handelsmerk van AECI® Beperk.

IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL 0861555777 / 082 446 8946

Batch No:

Lotnommer:

Date of manufacture:

Datum van vervaardiging:

UN No. / VN Nr. 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Metolachlor)

THALA™ 960 EC

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Handle with care.

Keep under lock and key in a cool, dry, well-ventilated place. Keep away from food, feeds, seed and fertilizers.

Keep out of reach of children, uninformed persons and animals.

Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.

In case of poisoning - CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM/HER.

Aerial application - notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

ALTHOUGH THIS REMEDY HAS BEEN EXTENSIVELY TESTED UNDER A LARGE VARIETY OF CONDITIONS THE REGISTRATION HOLDER DOES NOT WARRANT THAT IT WILL BE EFFICACIOUS UNDER ALL CONDITIONS BECAUSE THE ACTION AND EFFECT THEREOF MAY BE AFFECTED BY FACTORS SUCH AS ABNORMAL CLIMATIC AND STORAGE CONDITIONS; QUALITY OF DILUTION WATER, COMPATIBILITY WITH OTHER SUBSTANCES NOT INDICATED ON THE LABEL AND THE OCCURRENCE OF RESISTANCE OF THE WEEDS AGAINST THE REMEDY CONCERNED AS WELL AS BY THE METHOD, TIME AND ACCURACY OF APPLICATION. THE REGISTRATION HOLDER FURTHERMORE DOES NOT ACCEPT RESPONSIBILITY TO CROPS, VEGETATION, THE ENVIRONMENT OR HARM TO MAN OR ANIMAL OR FOR LACK OF PERFORMANCE OF THE REMEDY CONCERNED DUE TO FAILURE OF THE USER TO FOLLOW THE LABEL INSTRUCTIONS OR TO THE OCCURRENCE OF CONDITIONS WHICH COULD NOT HAVE BEEN FORESEEN IN TERMS OF THE REGISTRATION. CONSULT THE SUPPLIER IN THE EVENT OF ANY UNCERTAINTY.

PRECAUTIONS:

GHS Precautionary Statements

Avoid breathing dust/fume/gas/mist/ vapours/spray.
Wash body thoroughly after handling.
Wash hands thoroughly after handling. Do not touch eyes.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Avoid release to the environment.
Wear protective gloves.
IF SWALLOWED: Obtain medical assistance
IF ON SKIN: Obtain medical assistance
IF ON SKIN: Wash with plenty water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Rinse mouth
If skin irritation occurs: Get medical help.
If skin irritation or rash occurs: Get medical help.
Take off contaminated clothing and wash it before reuse
Collect spillage.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- Avoid eye and skin contact.
- Wear protective clothing such as rubber gloves, rubber boots and face shield when handling the concentrate, preparing the spray mixture and during application.
- Wash with soap and water after use and after accidental skin contact.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment or to nearby water sources.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

RELEVANT SUBSTANCES:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight
	EC-No.	
Metolachlor	51218-45-2	80-90%
	257-060-8	
Others up to 100%		

NOTE: The other ingredients not included above, do not cause or contribute towards the correct GHS classification of **THALA 960 EC** and are therefore, in terms of the South African Regulations for Hazardous Chemical Agents - 2021; Regulation 14(b), not listed.

FIRST AID TREATMENT

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if you feel unwell.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation persists.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation persists.

In case of ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if you feel unwell.

NOTE TO PHYSICIAN:

Treat symptomatically.

RESISTANCE WARNING:

THALA 960 EC is a Group Code 15 herbicide. Any weed population may contain individuals naturally resistant to **THALA 960 EC** and other Group Code 15 herbicides. The resistant individual weeds can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **THALA 960 EC** or any other Group Code 15 herbicide.

To delay herbicide resistance:

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with products from different herbicide Group Codes,
- Integrate other control methods (chemical, cultural, biological) into weed control programmes.

For specific information on resistance management contact the registration holder of this product.

MODE OF ACTION:

The mode of action for Metolachlor (chloro-acetanilide) is by inhibition of very long fatty acid division (VLCFA'S)

USE RESTRICTIONS

- Do not apply **THALA 960 EC** to poorly drained soils or soils with a compaction layer, as waterlogging and herbicide injury may occur.
- Heavy rain (25 mm per day or 50 mm over a 3- to 7-day period) on very sandy soils (< 15 % clay) low in organic matter (< 1 %), as well as flood irrigation can reduce weed control performance.
- **THALA 960 EC** may damage the following crops under conditions as mentioned: Dry beans on fields where monoculture is practiced and soilborne diseases are prevalent, also dry beans and sunflowers on shallow, sandy, waterlogged soils with an impermeable clay layer at less than 100 cm depth. **THALA 960 EC** damage to dry beans is sometimes associated with hot, dry weather and a plough-sole in the soil.
- When **THALA 960 EC** is applied to dry beans or grain sorghum the seed must be treated with effective fungicides to control seedling diseases, such as *Pythium* spp., *Rhizoctonia* spp., etc.
- Use restrictions for any herbicides used in combination with **THALA 960 EC** , must be adhered to.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

COMPATIBILITY:

- **THALA 960 EC** can be used in tank mixtures with various products. However, if any tank mixtures are performed; small quantities of the products in the correct ratio should be mixed with the appropriate quantity of water, to determine compatibility.
- Water quality and formulation of other products, may influence compatibility.

MIXING INSTRUCTIONS:

- Shake container well before use. Close container after use.
- Half fill the spray tank with clean water; add the required amount of **THALA 960 EC**, while maintaining agitation. Then complete the filling operation.
- When mixing **THALA 960 EC** with other herbicides, use the following procedure:
 1. fill the spray tank three quarters with clean water. Add the required amount of complementary herbicide to the water, agitating continuously,
 2. continue filling the spray tank with water, and add the required amount of **THALA 960 EC** just before the tank is filled, to its full level.
- Ensure thorough agitation of the mixture in the tank during mixing and spraying.
- Spray mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.
- Thoroughly flush out spraying equipment at the end of the spraying operation.

APPLICATION METHODS:

- Use accurately calibrated equipment with properly arranged, suitable nozzles and an efficient agitation mechanism.
- Prepare a fine, even and firm seedbed free of weeds, trash and clods.
- Apply **THALA 960 EC** or its tank mixtures preferably at planting or immediately after planting, but not later than three days after planting. Use 200 litres spray mixture per hectare for overall ground application and 30 to 40 litres per hectare for aerial application.
- **THALA 960 EC** can also be shallowly incorporated early in the season to improve reliability of weed control.
- 10 to 20 mm rain within 7 to 10 days after application is necessary for good results.
- Under dry conditions, weed seedlings may emerge. These are usually stunted and can be controlled with a shallow cultivation, which also mixes the herbicide with the top 10 to 20 mm of soil.
- If soil crusting becomes a problem, rotary harrow in the same direction that the rows are planted, to assist emergence.

- Harrowing after application may reduce weed control, if untreated soil is thrown into deep planter furrows.
- **THALA 960 EC** has no post-emergence activity and can be applied post-emergence to the crop after a cultivation, when no weeds are present.
- Ensure that sufficient fertilizer is placed near the seed at planting, to promote vigorous seedling growth.

Aerial application: (Pre-emergence ONLY)

Aerial application of **THALA 960 EC** may only be performed by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- Volume: A spray mixture volume of 30 litres per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- Droplet coverage: Droplet coverage of 20 to 30 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 350 to 400 micron is recommended. Limit the production of fine droplets less than 150micron (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable atomising equipment (hydraulic nozzles or rotary atomizers) that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field).. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km per hour.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - b) damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the fields are accurately marked and that the aerial spray operator knows exactly which fields to spray.

Obtain an assurance from the aerial spray operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

APPLICATION RATES PER CROP

A. Maize and Sweetcorn.

Apply **THALA 960 EC** as recommended above at planting or within 3 days of planting or post emergence of the crop.

For **yellow nutsedge** (*C. esculentus*) control see the recommendations under weed control below.

Broadleaf weeds are not adequately controlled by **THALA 960 EC**. Therefore the use of a broadleaf herbicide in a tankmix combination with **THALA 960 EC** or as a sequential post emerge treatment after **THALA 960 EC** is recommended.

THALA 960 EC applied as an inter-row directed post-emergence spray on maize

Soil type	% Clay	Overall Application (l/ha)
Light sand / Sand	0 to 10	0.35
Loamy sand / Sandy loam	11 to 20	0.5
Sandy clay loam	21 to 30	0.55
Sandy clay loam / Sandy clay	31 to 40	0.55 – 0.75
Sandy clay	41 to 50	0.55 – 0.75

NOTES:

- Residual grass control after a pre-emergence application of Acetochlor 900 g/l EC may be prolonged with a post-emergence application of **THALA 960 EC**. Any existing weeds must be destroyed by cultivation or with a registered post-emerge treatment before the **THALA 960 EC** application.
- If Acetochlor 900 g/l EC followed by **THALA 960 EC** split treatment is selected on soils containing more than 30% clay, the rate of **THALA 960 EC** may be varied according to the degree of pre-emergence control achieved and the prevailing weather conditions.
- The higher dosage rate of **THALA 960 EC** may be used if grass weeds have started to emerge at the time of the post-emergence application.

B. Groundnuts, Dry beans, Sunflowers, Soybeans and Lupins

Recommendations for use in broadleaf crops

Soil type	% Clay	THALA 960 EC (l/ha)
Sand / loamy sand / sandy loam	0 to 20	0.9 – 1.2
Sandy clay loam	21 to 30	1.2 – 1.5
Sandy clay loam / sandy clay	> 30	1.5 – 2.0

NOTE:

The higher application rates of **THALA 960 EC** are recommended for control of Yellow nutsedge (*Cyperus esculentus*) and Crab finger-grass (*Digitaria sanguinalis*) and also on soils with > 1.0 % organic matter.

C. Potatoes

Pre-emergence in respect of weeds:

Apply 1.9 litres per hectare, under dry land conditions, pre-emergence to potatoes and weeds, after the first summer rains.

Early post-emergence in respect of weeds:

THALA 960 EC is a pre-emergence herbicide. However, for early post weed emergence apply 1.9 litres per hectare under dry land conditions, after the first summer rains in a tank mixture with **Chesa™ 200 SL** (Reg. No. L11048, Act No. 36 of 1947) at 1 to 2 litres per hectare.

THALA 960 EC / Chesa 200 SL (mixtures must not be applied after 10 % potato emergence).

A rate of 1.5 litres per hectare **THALA 960 EC** can be applied under irrigation.

THALA 960 EC can also be applied post-emergence to the potatoes after ridging.

D. Sugarcane

Table 1: THALA 960 EC can be used as a pre-emergence application.

Application dosage rates ℓ/ha	Remarks
1.5 to 2.5	Apply higher rates if clay content > 35 %, to improve control of <i>Panicum maximum</i> and <i>Cyperus esculentus</i> and for longer residual control.
3.0	Apply on soils with > 35 % clay and > 1 % organic matter.

E. Grain and Forage sorghum

THALA 960 EC can be used in sorghum provided the seed has been pretreated, as prescribed, with a suitable, registered seed treatment to prevent phytotoxicity by **THALA 960 EC**.

THALA 960 EC applied pre-emergence in sorghum after seed treatment.

Soil type	% Clay	THALA 960 EC (ℓ/ha)
Sand / loamy sand / sandy loam	0 - 20	Not recommended
Sandy clay loam	21 - 30	1.2
Sandy clay loam / sandy clay	31 - 40	1.5
Clay	> 40	1.5 - 2.0

NOTES:

- An application rate of 2.0 litres per hectare is recommended on turf soils, for improved control of Sweet signal grass and Yellow nutsedge.
- Prevent the formation of a soil crust through a shallow cultivation as soon as possible.
- Very wet conditions during the first 4 to 6 weeks after **THALA 960 EC** application may damage the sorghum, but it is normally outgrown.
- The presence of seedling diseases may result in **THALA 960 EC** damage to the sorghum.
- Post emergence applications of Atrazine 500 g/ℓ SC can be applied in tank mixture with **2,4-D Amine 480 SL** (Reg. No. L5233, Act 36 of 1947) for broadleaf control in sorghum. Consult the Atrazine 500 g/ℓ SC /**2,4-D Amine 480 SL** labels for details.

F. Tobacco (Summer Rainfall Region only).

Apply **THALA 960 EC** within 3 days after transplanting while the plants are still wilted. When the tobacco is turgid, the spray must be directed to prevent it from entering the funnel, where the growing point may be damaged. If actively growing leaves are sprayed, scorching may occur. If **THALA 960 EC** is sprayed on gravelly soils or soils with less than 10 % clay, the spray should be directed at least 10 cm on both sides away from the plant row to prevent leaching to the root zone of the tobacco.

The **THALA 960 EC** can be activated by applying overhead irrigation of 10 to 15 mm within 2 to 3 days after application, on soils with less than 35 % clay and 20 to 30 mm on soils with more than 35 % clay.

THALA 960 EC application rates in tobacco

Soil type	% Clay	THALA 960 EC (l/ha)
Sand	0 - 10	0.77
Loamy sand / sandy loam	11 - 20	1.08
Sandy clay loam	21 - 35	1.5
Sandy clay	> 35	2.15

NOTES:

- Only strong and healthy plants should be transplanted.
- Tobacco should be properly transplanted. Roots that are exposed to **THALA 960 EC** at application will result in adversely affected plants.

WEEDS CONTROLLED BY THALA 960 EC

THE FOLLOWING WEED SPECIES ARE NORMALLY CONTROLLED BY THALA 960 EC	
Botanical name	Common name
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Chloris virgata</i>	Feathertop Chloris
<i>Dactyloctenium aegyptium</i>	Crowfoot
<i>Digitaria sanguinalis</i>	Crab finger grass
<i>Echinochloa crus-galli</i>	Barnyard grass
<i>Eleusine indica</i> => <i>Eleusine coracana</i>	Goose grass
<i>Panicum maximum</i>	Common buffalos grass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Pseudobrachiaria deflexa</i>	False signal grass
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Setaria verticillata</i>	Sticky bristle grass
<i>Tragus berteronianus</i>	Small carrot-seed grass
<i>Tragus racemosus</i>	Large carrot-seed grass
<i>Urochloa mosambicensis</i>	Bushveld herringbone grass
<i>Urochloa panicoides</i>	Herringbone grass
WEEDS VARIABLELY CONTROLLED BY THALA 960 EC :	
Botanical name	Common name
<i>Amaranthus hybridus</i>	Common pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome monophylla</i>	Spindlepod
<i>Commelina benghalensis</i>	Benghal wandering Jew
<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Datura ferox</i>	Large thorn apple
<i>Datura stramonium</i>	Thorn apple
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Nicandra physaloides</i>	Apple-of-Peru
<i>Portulaca oleracea</i>	Purslane

The control of Yellow nutsedge (*Cyperus esculentus*) is dependent on a thorough ploughing immediately before planting, application 1 to 2 days after planting, which is followed by about 10 to 20 mm rain within 7 to 10 days after ploughing. More rain is required on heavy soils.

Chesa™ 200 SL is a pending trademark of AECL® Limited

2,4-D Amine 480 SL is the tradename of Nulandis® (A division of AECL® Limited)